

IN THE CLAIMS

1-14 (Canceled)

15. (Currently amended) ~~A~~ The method of controlling the production of a liquefied natural gas product stream obtained by removing heat from natural gas in two parallel heat exchangers, wherein in each of the heat exchangers the natural gas is in indirect heat exchange with expanded heavy mixed refrigerant and expanded light mixed refrigerant, wherein the liquefied gas from the two heat exchangers is combined to form the liquefied natural gas product stream, wherein the flow rates of the refrigerants supplied to each of the heat exchangers and the temperature and the flow rate of the liquefied natural gas product stream are controlled by ~~a~~ the method comprising the steps of:

- a) measuring the temperature and the flow rate of the liquefied natural gas product stream and measuring the flow rates of the heavy mixed refrigerant and of the light mixed refrigerant;
- b) selecting the flow rate of one of the refrigerants (the heavy mixed refrigerant, the light mixed refrigerant or the total mixed refrigerant) to have an operator manipulated set point, and generating a first output signal for adjusting the flow rate of the heavy mixed refrigerant and a second output signal for adjusting the flow rate of the light mixed refrigerant using (i) the operator manipulated set point for the flow rate of the one of the refrigerants, (ii) the flow rates of the heavy and light mixed refrigerants and (iii) an operator manipulated set point for the ratio of the flow rate of the heavy mixed refrigerant to the flow rate of the light mixed refrigerant;
- c) adjusting the flow rates of the heavy mixed refrigerant and the light mixed refrigerant in accordance with the first and second output signals;
- d) determining a dependent set point for the ratio of the flow rate of the liquefied natural gas product stream to the flow rate of one of the refrigerants such that the temperature of the liquefied natural gas product stream is maintained at an operator manipulated set point, and determining a dependent set point for the flow rate of the liquefied natural gas product stream using (i) the dependent set point for the ratio of the flow rate of the liquefied natural gas product stream to the flow rate of the one of the refrigerants and (ii) the flow rate of the one of the refrigerants; and
- e) maintaining the flow rate of the liquefied natural gas product stream at its dependent set point,

~~according to any one of the claims 1-14,~~ and wherein the flow rate of one of the refrigerants referred to in step d) is the sum of the flow rates of this refrigerant to the heat exchangers, which method further comprises the steps of:

- 1) allowing the liquefied natural gas from each of the heat exchangers to pass through a conduit provided with a flow control valve, and measuring the two flow rates of the liquefied natural gas flowing through the conduits;